| L        | Hits           | Search Text   | DB   | Time stamp          |
|----------|----------------|---|--|---------------------|
| Number   | 101            | /117/00 cm 117/107) cclc  | USPAT;   | 2004/08/18          |
| 73       | 181            | (117/98 or 117/107).ccls.   | US-PGPUB;<br>EPO; JPO;<br>DERWENT;                                 | 16:12               |
| 74       | 8              | ((117/98 or 117/107).ccls.) and (atomic<br>near2 layer near2 (deposit\$5 or epitax\$6)<br>or ale or ald)  | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;                        | 2004/08/18<br>16:15 |
| 75       | 35             | ((117/98 or 117/107).ccls.) and rotat\$5<br>near10 (gas\$4)   | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;                        | 2004/08/18<br>16:16 |
| 76       | 50             | (thomas near2 omstead or karl near2 levy).in.   | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;                        | 2004/08/18<br>16:17 |
| 77       | 3              | <pre>((thomas near2 omstead or karl near2 levy).in.) and (ald or ale or atomic near2 layer near2 (deposit\$7 or epitax\$7))</pre>                     | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;                        | 2004/08/18<br>16:17 |
| _        | 11832          | <pre>(ald or ale or atomic near2 layer near2   (deposit\$5 or epitax\$5) or sequential   near2 (cvd or deposit\$5))</pre>                             | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB                | 2004/07/30<br>11:28 |
| <b>-</b> | 2166           | ((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) and (module or station)                  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB            | 2004/07/29<br>13:11 |
| -        | 0              | ((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) and (module or station) near5 plural%6   | USPĀT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;                       | 2004/07/29 13:11    |
| -        | 290            | ((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) and (module or station) near5 plural\$6  | IBM_TDB<br>USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;            | 2004/07/29<br>13:11 |
| -        | 9              | ((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) same (module or station) near5 plural\$6 | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB                | 2004/07/29<br>13:17 |
| _        | O              | sequential near2 deposit\$5 near2 module  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;                       | 2004/07/29<br>13:18 |
| _        | 1              | sequent\$5 near2 deposit\$5 near2 module  | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;                        | 2004/07/29<br>13:18 |
| _        | . <sup>1</sup> | sequent\$5 near4 deposit\$5 near5 module  | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;                        | 2004/07/29<br>13:18 |
| _        | 435            | novellus.as.  | IBM_TDB<br>USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/29<br>13:20 |

|   | •     |  |   |                     |
|---|-------|--|---|---------------------|
| _ | 5     | novellus.as. and ald   | USPAT;<br>US-PGPUB;<br>EPO; JPO;                        | 2004/07/29<br>13:19 |
|   | 24    | we will no set domosités   | DERWENT; IBM_TDB USPAT;                                 | 2004/07/29          |
| _ | 24    | novellus.as. and module near5 deposit\$5   | US-PGPUB;<br>EPO; JPO;<br>DERWENT;                      | 13:21               |
| - | 80    | ((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) and module near5 deposit\$5   | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB     | 2004/07/29<br>15:16 |
| - | 2     | 5879459.pn.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/29<br>14:51 |
| - | 1374  | <pre>((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) and (wafer or substrate) near10 (transfer\$5 or transport\$5)</pre>  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/29<br>15:16 |
| - | 216   | <pre>((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) same (wafer or substrate) near10 (transfer\$5 or transport\$5)</pre> | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/29<br>15:17 |
| - | 190   | <pre>((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))) same (wafer or substrate) near5 (transfer\$5 or transport\$5)</pre>  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/07/30          |
| - | 13    |  | USPĀT   | 2004/07/30 10:02    |
| - | 3672  | rotat\$5 near5 ball near5 valve  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/30<br>11:28 |
| - | 2132  | rota\$5 near2 ball near2 valve   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/30<br>11:28 |
| _ | 11832 | <pre>(ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5))</pre>  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/30<br>11:28 |
| _ | 2     | <pre>(rota\$5 near2 ball near2 valve) and ((ald or ale or atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or deposit\$5)))</pre>                           | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/07/30<br>11:29 |
| _ | 0     | (rota\$5 near2 ball near2 valve) and (CVD or chemical near2 vapor near2 deposit\$5)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;            | 2004/07/30<br>11:30 |
| - |       | ((rota\$5 near2 ball near2 valve) and (CVD or chemical near2 vapor near2 deposit\$5)) and 117/\$.ccls.   | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB     | 2004/07/30<br>11:30 |

|     |          |   |                        | I                   |
|-----|----------|---|------------------------|---------------------|
| -   | 44       | (rota\$5 near2 ball near2 valve) near10 gas\$5                                      | USPAT;<br>US-PGPUB;    | 2004/07/30<br>12:05 |
|     |          |   | EPO; JPO;              |                     |
|     |          |   | DERWENT;               |                     |
| _   | 70035    | gas\$4 near US-20020170671-A1.DID. curtain  | IBM_TDB<br>USPAT;      | 2004/07/30          |
|     | ,,,,,    | gasya near os zoozor/oo/1-Ar.bib. curtain   | US-PGPUB;              | 12:06               |
|     |          |   | EPO; JPO;              |                     |
|     |          |   | DERWENT;               |                     |
|     | 120      | /gage4 noam Hg_20020170671 71 DID   | IBM_TDB                | 2004/07/30          |
| _   | 139      | (gas\$4 near US-20020170671-A1.DID. curtain) and ((ald or ale or atomic near2       | USPAT;<br>US-PGPUB;    | 12:06               |
|     | [        | layer near2 (deposit\$5 or epitax\$5) or  | EPO; JPO;              | 12.00               |
|     |          | sequential near2 (cvd or deposit\$5)))  | DERWENT;               |                     |
|     |          |   | IBM_TDB                | 0004/07/00          |
| -   | 16       | gas\$4 near US-20020170671-A1.DID. curtain same transfer and ((ald or ale or atomic | USPAT;<br>US-PGPUB;    | 2004/07/30          |
|     |          | near2 layer near2 (deposit\$5 or epitax\$5)   | EPO; JPO;              | 12:07               |
|     |          | or sequential near2 (cvd or deposit\$5)))   | DERWENT;               |                     |
|     |          | -   | IBM_TDB                |                     |
| -   | 47       | gas\$4 near5 curtain and ((ald or ale or  | USPAT;                 | 2004/07/30          |
|     |          | atomic near2 layer near2 (deposit\$5 or epitax\$5) or sequential near2 (cvd or      | US-PGPUB;<br>EPO; JPO; | 12:07               |
|     |          | deposit\$5)))   | DERWENT;               |                     |
|     |          | •   | IBM_TDB                |                     |
| -   | 108      |   | USPĀT;                 | 2004/08/12          |
|     |          | vapor near2 deposit\$4)   | US-PGPUB;              | 14:18               |
|     |          |   | EPO; JPO;<br>DERWENT;  |                     |
|     |          |   | IBM TDB                |                     |
| ] - | 32       | manifold near10 showerhead same (CVD or   | USPAT;                 | 2004/08/12          |
|     |          | vapor near2 deposit\$4)   | US-PGPUB;              | 14:37               |
|     |          |   | EPO; JPO;              |                     |
|     |          |   | DERWENT;<br>IBM TDB    |                     |
| _   | 3835     | gas\$4 near5 curtain  | USPAT;                 | 2004/08/12          |
|     |          | y ,   | US-PGPUB;              | 14:38               |
|     |          |   | EPO; JPO;              |                     |
|     |          |   | DERWENT;               |                     |
| _   | 268      | gas\$4 near5 curtain and vapor near2  | IBM_TDB<br>USPAT;      | 2004/08/12          |
|     |          | deposit\$5  | US-PGPUB;              | 14:39               |
|     |          | _   | EPO; JPO;              |                     |
|     |          |   | DERWENT;               |                     |
| _   | E 0      | gas\$4 near5 curtain same vapor near2   | IBM_TDB<br>USPAT;      | 2004/08/12          |
| ] [ | 38       | deposit\$5  | US-PGPUB;              | 14:43               |
|     |          |   | EPO; JPO;              |                     |
|     |          |   | DERWENT;               |                     |
|     |          |   | IBM_TDB                | 2004/09/12          |
| _   | 22       | gas\$4 near5 curtain and (vapor near2 deposit\$4) and (plural\$5 or multipl\$5)     | USPAT;<br>US-PGPUB;    | 2004/08/12<br>14:46 |
|     |          | near5 (zone or station\$4)  | EPO; JPO;              | 1 1 1 1 0           |
| 1   |          | ,, ,  | DERWENT;               |                     |
|     | _        |   | IBM_TDB                |                     |
| -   | 2        | 6143082.pn.   | USPAT;                 | 2004/08/12<br>15:48 |
|     |          |   | US-PGPUB;<br>EPO; JPO; | 13.40               |
|     |          |   | DERWENT;               |                     |
|     |          |   | IBM_TDB                |                     |
| -   | 489      | plasma near10 (atomic near2 layer near2   | USPAT;                 | 2004/08/12          |
|     |          | (deposit\$5 or epitax\$4) or ale or ald)  | US-PGPUB;<br>EPO; JPO; | 15:49               |
|     |          |   | DERWENT;               |                     |
|     |          |   | IBM_TDB                |                     |
| [ - | 19       |   | USPĀT;                 | 2004/08/12          |
|     |          | (deposit\$5 or epitax\$4) or ale or ald)  | US-PGPUB;              | 15:51               |
|     |          | and 117/\$4.ccls.   | EPO; JPO; DERWENT;     |                     |
|     |          |   | IBM TDB                |                     |
|     | <u> </u> |   | -211 + 22              |                     |

| _   | 280   | plasma near10 (atomic near2 layer near2  | USPAT;                | 2004/08/12 |
|-----|-------|--|-----------------------|------------|
|     |       | (deposit\$5 or epitax\$4) or ale or ald)   | US-PGPUB;             | 15:51      |
|     |       | near3 (enhanc\$5 or assist\$5)   | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     |       |  | IBM_TDB               | 0004/00/10 |
| -   | 195   | plasma near5 (atomic near2 layer near2   | USPAT;                | 2004/08/12 |
|     |       | (deposit\$5 or epitax\$4) or ale or ald)   | US-PGPUB;             | 15:52      |
|     |       | near3 (enhanc\$5 or assist\$5)   | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
| ļ   |       |  | IBM_TDB               |            |
| -   | 110   | plasma near2 (atomic near2 layer near2   | USPAT;                | 2004/08/12 |
|     |       | (deposit\$5 or epitax\$4) or ale or ald)   | US-PGPUB;             | 15:55      |
|     |       | near3 (enhanc\$5 or assist\$5)   | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     |       | F01 63 65  | IBM_TDB               | 2004/09/12 |
| -   | 2     | 5916365.pn.  | USPAT;                | 2004/08/12 |
|     |       |  | US-PGPUB;             | 16:36      |
|     |       |  | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     | 200   | nlares was (GVD as showing land near) transm                                       | IBM_TDB<br>USPAT;     | 2004/08/12 |
| _   | 389   | plasma near5 (CVD or chemical near2 vapor  | US-PGPUB;             | 16:40      |
|     |       | near2 deposit\$5 or ale or ald or atomic<br>near2 layer near2 (deposit\$5 or       | EPO; JPO;             | 10.40      |
|     |       |  | DERWENT;              |            |
|     |       | epitax\$4)).ti. and bias\$5  | IBM TDB               |            |
|     | 22    | mlagma manuf (CVD) on shemigal near? waner   | USPAT;                | 2004/08/12 |
| -   | 33    | plasma near5 (CVD or chemical near2 vapor near2 deposit\$5 or ale or ald or atomic | US-PGPUB;             | 16:55      |
|     |       | near2 deposits of ale of ald of atomic near2 layer near2 (deposits or              | EPO; JPO;             | 16.55      |
|     |       | epitax\$4)).ti. and bias\$5 near5  | DERWENT;              |            |
|     |       | (susceptor or holder)  | IBM TDB               |            |
| _   | 6     | (plasma near5 (CVD or chemical near2   | USPAT;                | 2004/08/12 |
| -   |       | vapor near2 deposit\$5 or ale or ald or  | US-PGPUB;             | 16:38      |
|     |       | atomic near2 layer near2 (deposit\$5 or  | EPO; JPO;             | 10.50      |
|     |       | epitax\$4)).ti. and bias\$5 near5  | DERWENT;              |            |
|     |       | (susceptor or holder)) and showerhead  | IBM TDB               |            |
| l _ | 23    | plasma near5 (CVD or chemical near2 vapor  | USPAT;                | 2004/08/12 |
|     | 23    | near2 deposit\$5 or ale or ald or atomic   | US-PGPUB;             | 16:40      |
|     |       | near2 layer near2 (deposit\$5 or   | EPO; JPO;             |            |
|     |       | epitax\$4)).ti. and bias\$5 same showerhead  | DERWENT;              |            |
|     |       |  | IBM TDB               |            |
| _   | 47    | plasma near5 (CVD or chemical near2 vapor  | USPAT;                | 2004/08/12 |
|     |       | near2 deposit\$5 or ale or ald or atomic   | US-PGPUB;             | 16:56      |
|     |       | near2 layer near2 (deposit\$5 or   | EPO; JPO;             |            |
|     |       | epitax\$4)).ti. and bias\$5 near10   | DERWENT;              |            |
|     |       | (susceptor or holder)  | IBM TDB               |            |
| -   | 418   |  | USPAT;                | 2004/08/12 |
|     |       |  | US-PGPUB;             | 17:00      |
|     |       |  | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     |       | •  | IBM_TDB               |            |
| _   | 1     | rotary near2 ball near2 valve and vapor  | USPAT;                | 2004/08/12 |
|     |       | near2 deposit\$5   | US-PGPUB;             | 17:00      |
|     |       |  | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     |       |  | IBM_TDB               |            |
| -   | 8     | rotary near2 ball near2 valve near5  | USPAT;                | 2004/08/12 |
|     |       | (gas\$4 or vapor\$5)   | US-PGPUB;             | 17:02      |
|     |       |  | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     |       |  | IBM_TDB               | 2004/00/12 |
| _   | 17    | rotary near5 valve same ball same  | USPAT;                | 2004/08/12 |
|     |       | deposit\$6   | US-PGPUB;             | 17:03      |
|     |       |  | EPO; JPO;             |            |
|     |       |  | DERWENT;              |            |
|     |       | .matanus mant sunless same hall some /us A4  | IBM TDB               | 2004/00/12 |
| _   | . 141 | rotary near5 valve same ball same (gas\$4  | USPAT;                | 2004/08/12 |
|     |       | or vapor\$5 or vapour\$5)  | US-PGPUB;             | 17:05      |
|     |       |  | EPO; JPO;<br>DERWENT; |            |
|     |       |  | IBM TDB               |            |
| I   |       |  | TDM_TDD               |            |

| Totary near's valve same ball and vapor near's deposits   17:00   18-PEPUB;   17:00   18-PEPUB;   17:00   18-PEPUB;   18-PEP  |   |          |   |           |                     |
|---|---|----------|---|-----------|---------------------|
| - 5 rotary near5 valve near5 ball and vapor near2 deposit\$5  - 84 rotary near5 valve near5 ball and deposit\$5  - 84 rotary near5 valve near5 ball and deposit\$5  - 71 rotary near5 valve near5 ball and deposit\$5  - 71 rotary near5 valve near5 ball and deposit\$5  - 71 rotary near5 valve near5 ball and deposit\$5  - 72 rotary near5 valve near5 ball and deposit\$5  - 73 rotary near5 valve near5 ball and deposit\$5  - 74 rotary near5 valve near5 ball and deposit\$5  - 75 reactant\$5 or precursor\$5 or vapor\$5  - 85 rotary near5 valve near5 ball and deposit\$5  - 76 rotary near5 valve near5 ball and deposit\$5  - 77 rotary near5 valve near5 ball and deposit\$5  - 78 rotary near5 valve near5 ball and deposit\$5  - 79 rotary near5 valve near5 ball and deposit\$5  - 70 rotary near5 valve near5 ball and deposit\$5  - 70 rotary near5 valve near5 ball and deposit\$5  - 70 rotary near5 valve near5 ball and deposit\$5  - 70 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and deposit\$5  - 80 rotary near5 valve near5 ball and vapor near2  - 80 rotary near5 valve near5 ball and vapor near2  - 80 rotary near5 valve near5 ball and vapor near2  - 80 rotary near5 valve near5 ball and vapor near2  - 80 rotary near5 valve near5 ball and vapor near2  - 80 rotary near5 valve near5 ba   | _ | 7        | rotary near5 valve same ball and vapor near2 deposit\$5 | US-PGPUB; | 2004/08/12<br>17:06 |
| Solution   |   |          |   | DERWENT;  |                     |
| BEO, JPO:   DERWERT:   ITM TOB   USPAT:   US-PGFUB;   EPO: JPO:   DERWERT:   ITM TOB   USPAT:   US-PGFUB;   IT: 07   USPAT:   U  | - | 5        |   | USPĀT;    | 1                   |
| Tentry near5 valve near5 ball and deposit\$5   17:06  |   |          | meanz depositys   | EPO; JPO; |                     |
| deposit\$5  |   | 0.4      | matany magnify years pooni hall and                     | IBM_TDB   | 2004/08/12          |
| - 71 rotary near5 valve near5 ball same (gas\$5 or reactant\$5 or precursor\$5 or vapor\$5) - 201 gas\$5 near2 curtain near10 (separat\$5 or isolat\$6) - 107 gas\$5 near2 curtain near10 (separat\$5 or isolat\$6) - 107 gas\$5 near2 curtain near10 (separat\$5 or isolat\$6) same chamber - 24 inert near5 gas\$5 near2 curtain near10 - 24 inert near5 gas\$5 near2 curtain near10 - 34 inert near5 gas\$5 near2 curtain and cluster enar5 tool - 1 inert near5 gas\$5 near2 curtain and cluster near5 tool - 2 inert near5 gas\$5 near2 curtain and cluster near5 tool - 3 inert near5 gas\$5 near2 curtain same cluster - 2 inert near5 gas\$5 near2 curtain and cluster enar5 tool - 3 inert near5 gas\$5 near2 curtain same cluster - 3 inert near5 gas\$5 near2 curtain and cluster - 4 inert near5 gas\$5 near2 curtain same cluster - 5 inert near5 gas\$5 near2 curtain and cluster - 6 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 6 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 2 inert near5 gas\$5 near2 curtain same cluster - 3 inert near5 gas\$5 near2 curtain same cluster - 6 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 7 inert near5 gas\$5 near2 curtain same cluster - 8 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 curtain same cluster - 9 inert near5 gas\$5 near2 cu   | - | 04       |   | US-PGPUB; |                     |
| Totary nears valve near5 ball same (gas\$5 to reactant\$5 or precursor\$5 or vapor\$5)  201 201 201 201 201 3395 near2 curtain near10 (separat\$5 or UspAT; UspAT   |   |          |   | DERWENT;  |                     |
| 201   gas\$5 near2 curtain near10 (separat\$5 or isolat\$6)   Seporat   Sepor   | - | 71       |   | USPAT;    |                     |
| 201   gas\$5 near2 curtain near10 (separat\$5 or isolat\$6)   IBM TDB   USPAT; USPEQUB; EPO; JPO; DREWENT; IBM TDB   USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPAT; USPEQUB; EPO; JPO; DREWENT; IBM TDB   USPAT; USPACPUB; EPO; JPO; DREWENT; IBM TDB   USPAT; USPACPUB; EPO; JPO; DREWENT; IBM TDB USPAT; USPACPUB; EPO; JPO; DREWENT; IBM TDB USPAT; USPACPUB; EPO; JPO; DREWENT; IBM TDB USPAT; US   |   |          | or reactants or precursors or vaporss                   | EPO; JPO; | 17.07               |
| 103   107   107   108   108   108   109   109   108   |   | 201      | maés nour? guntain nour10 /gonaratés or                 | IBM_TDB   | 2004/08/13          |
| DERMENT: IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT  | _ |          |   | US-PGPUB; | 1                   |
| DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; JPG; JPG; JPG; JPG; JPG; J  |   | <u> </u> |   | DERWENT;  |                     |
| DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; JPG; JPG; JPG; JPG; JPG; J  | - | 107      | 1 3 '   | USPĀT;    | 1                   |
| DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; JPG; JPG; JPG; JPG; JPG; J  |   | t V      | ISOIAC76) Same Chamber                                  | EPO; JPO; | 10.24               |
| DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; JPG; JPG; JPG; JPG; JPG; J  |   | 24       | inert near5 gas\$5 near2 curtain near10                 | IBM_TDB   | 2004/08/13          |
| DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; DERWENT; IBM TDB USPĀT; US-PGPUB; EPG; JPG; JPG; JPG; JPG; JPG; JPG; JPG; J  | _ | 24       | 1   | US-PGPUB; |                     |
| - 949406   inert near5 gas\$5 near2 curtain and cluster enar5 tool   USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB   USPAT; U   |   | -        |   | DERWENT;  |                     |
| - 1 inert near5 gas\$5 near2 curtain and cluster near5 tool USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; Cluster USPGVB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;   | _ | 949406   |   | USPĀT;    |                     |
| 1   inert near5 gas\$5 near2 curtain and cluster near5 tool   USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; EPO; JPO   |   |          |   |           |                     |
| Cluster near5 tool  | _ | 1        | inert near5 gas\$5 near2 curtain and                    | IBM_TDB   | 2004/08/13          |
| - 0 inert near5 gas\$5 near2 curtain same cluster   |   |          |   |           | 16:27               |
| Cluster   |   |          |   | IBM_TDB   |                     |
| DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;  | _ | 0        |   | US-PGPUB; |                     |
| - 26 inert near5 gas\$5 near2 curtain and cluster  - 75 inert near5 gas\$5 near2 curtain same deposit\$5  - 3396 (wafer or substrate) near10 bias\$5 and plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  - 627 (CVD or vapor near2 deposit\$5)   |   |          |   | DERWENT;  |                     |
| EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; EPO; JPO; DERWENT;  | _ | 26       |   | USPĀT;    | 1                   |
| - To inert near5 gas\$5 near2 curtain same deposit\$5  - To inert near5 gas\$5 near2 curtain same deposit\$5  - To deposit\$6  - To deposit\$6  - To deposit\$6  - To |   |          | cluster   | EPO; JPO; | 1 10:28             |
| deposit\$5  deposit\$5  (wafer or substrate) near10 bias\$5 and plasma near2 (CVD or vapor near2 deposit\$5)  (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  EVO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;  |   | 7.5      | inert pears gages weeks garden some                     | IBM_TDB   | 2004/08/16          |
| - 3396 (wafer or substrate) near10 bias\$5 and plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)    DERWENT; IBM_TDB   US-PGPUB; US-PGPUB; DERWENT; IBM_TDB   US-PGPUB; DERWENT; DERWENT; DERWENT; DERWENT;  | - | /5       | , · · · · · · · · · · · · · · · · · · ·                 | US-PGPUB; |                     |
| - 3396 (wafer or substrate) near10 bias\$5 and plasma near2 (CVD or vapor near2 deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)    CVD or vapor near2 deposit\$5  |   |          |   | DERWENT;  |                     |
| deposit\$5)  - 626 (wafer or substrate) near10 bias\$5 same plasma near2 (CVD or vapor near2 deposit\$5)  EPO; JPO; DERWENT; IBM_TDB  USPAT; US-PGPUB; US-PGPUB; EPO; JPO; DERWENT;   | _ | 3396     |   | USPAT;    |                     |
| - 626 (wafer or substrate) near10 bias\$5 same USPAT; US-PGPUB; deposit\$5) EPO; JPO; DERWENT;  |   |          |   | EPO; JPO; |                     |
| plasma near2 (CVD or vapor near2 US-PGPUB; deposit\$5) EPO; JPO; DERWENT;   | _ | 626      | (wafer or substrate) near10 bias\$5 same                | IBM_TDB   | 2004/08/16          |
| DERWENT;  |   |          | plasma near2 (CVD or vapor near2                        | EPO; JPO; | 10:56               |
|   |   |          |   |           |                     |

| -   | 513   | (wafer or substrate) near5 bias\$5 same  | USPAT;              | 2004/08/16 |
|-----|-------|--|---------------------|------------|
|     |       | plasma near2 (CVD or vapor near2   | US-PGPUB;           | 10:56      |
|     |       | deposit\$5)  | EPO; JPO;           |            |
|     |       |  | DERWENT;            |            |
| 1   | 341   | (wafer or substrate) near2 bias\$5 same  | IBM_TDB<br>USPAT;   | 2004/08/16 |
| _   | 341   | plasma near2 (CVD or vapor near2   | US-PGPUB;           | 11:02      |
|     |       | deposit\$5)  | EPO; JPO;           | 11.02      |
|     |       | deposit cys/   | DERWENT;            |            |
|     |       |  | IBM TDB             |            |
| _   | 0     | (wafer or substrate) near2 bias\$5 same  | USPAT;              | 2004/08/16 |
|     |       | plasma near2 (CVD or vapor near2   | US-PGPUB;           | 11:02      |
|     |       | deposit\$5) and plamsa.ti.   | EPO; JPO;           |            |
|     |       | Land Control of the C | DERWENT;            |            |
|     |       |  | IBM_TDB             |            |
| -   | 93    | (wafer or substrate) near2 bias\$5 same  | USPAT;              | 2004/08/16 |
|     |       | plasma near2 (CVD or vapor near2   | US-PGPUB;           | 11:15      |
|     |       | deposit\$5) and plasma.ti.   | EPO; JPO;           |            |
|     |       |  | DERWENT;            |            |
|     | _     |  | IBM_TDB             | 2004/20/26 |
| -   | 1     | (wafer or substrate) near2 bias\$5 near10  | USPAT;              | 2004/08/16 |
|     |       | advantag\$5 same plasma near2 (CVD or  | US-PGPUB;           | 11:15      |
|     |       | vapor near2 deposit\$5)  | EPO;<br>DERWENT;    |            |
|     |       |  | IBM TDB             |            |
| 1_  | 33653 | (wafer or substrate) near2 bias\$5 near10  | USPAT;              | 2004/08/16 |
| -   | 33633 | improv\$6same plasma near2 (CVD or vapor   | US-PGPUB;           | 11:16      |
|     |       | near2 deposit\$5)  | EPO;                |            |
|     |       | Hearz depositors   | DERWENT;            |            |
|     |       |  | IBM TDB             |            |
| _   | 9     | (wafer or substrate) near2 bias\$5 near10  | USPAT;              | 2004/08/16 |
|     |       | improv\$6 same plasma near2 (CVD or vapor  | US-PGPUB;           | 11:30      |
|     |       | near2 deposit\$5)  | EPO;                |            |
|     |       | -  | DERWENT;            |            |
|     |       |  | IBM_TDB             |            |
| _   | 1     | 5879459.pn. and plasma   | USPAT;              | 2004/08/16 |
|     |       |  | US-PGPUB;           | 13:16      |
|     |       |  | EPO; JPO;           |            |
|     |       |  | DERWENT;            |            |
|     | 0     |  | IBM_TDB<br>USPAT;   | 2004/08/16 |
| -   | "     | plasma near5 clean\$5 same substrate near5 bais\$5   | US-PGPUB;           | 11:34      |
|     |       | NealS Dals53   | EPO; JPO;           | *1.54      |
|     |       |  | DERWENT;            |            |
|     | 1     |  | IBM TDB             |            |
| l - | 139   | plasma near5 clean\$5 same substrate   | USPAT;              | 2004/08/16 |
|     |       | near5 bias\$5  | US-PGPUB;           | 11:37      |
|     |       |  | EPO; JPO;           |            |
|     | 1     |  | DERWENT;            |            |
|     |       |  | IBM_TDB             |            |
| -   | 0     | F====================================  | USPAT;              | 2004/08/16 |
|     |       | near5 bias\$5 and (ald or ale or atomic  | US-PGPUB;           | 11:37      |
|     |       | near2 layer near2 (epitax\$5 or  | EPO; JPO;           |            |
|     |       | deposit\$5))   | DERWENT;            |            |
|     | 307   | nlagma noan? otabéE gama substrata?  | IBM_TDB             | 2004/08/16 |
| -   | 387   | plasma near2 etch\$5 same substrate near2   bias\$5  | USPAT;<br>US-PGPUB; | 13:17      |
|     |       | ηταρήη   | EPO; JPO;           | 10.11      |
|     |       |  | DERWENT;            |            |
|     |       |  | IBM TDB             |            |
| _   | 75    | plasma near2 etch\$5 near5 substrate   | USPAT;              | 2004/08/16 |
|     |       | near2 bias\$5  | US-PGPUB;           | 13:18      |
|     |       | · ·  | EPO; JPO;           |            |
|     |       |  | DERWENT;            |            |
|     | 2.5   |  | IBM_TDB             |            |
| -   | 12    | 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3  | USPAT;              | 2004/08/16 |
|     | 1     | near2 bias\$5  | US-PGPUB;           | 13:18      |
|     | . ž   |  | EPO; JPO;           |            |
|     |       |  | DERWENT;            | *          |
| 1   | ć.    |  | IBM_TDB             |            |

|   |     |  |  | 10004/00/16         |
|---|-----|--|--|---------------------|
| - | 60  | substrate near2 bias\$5 near10 plasma and showerhead near10 plasma                     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT; | 2004/08/16<br>13:51 |
|   |     |  | IBM TDB                                      |                     |
| - | 450 | cluster near5 tool same plasma   | USPAT;<br>US-PGPUB;                          | 2004/08/16<br>13:51 |
|   |     |  | EPO; JPO;<br>DERWENT;                        |                     |
| - | 131 | cluster near5 tool same plasma and plasma near10 bias\$5                               | IBM_TDB<br>USPAT;<br>US-PGPUB;               | 2004/08/16          |
|   |     |  | EPO; JPO;<br>DERWENT;<br>IBM TDB             |                     |
| - | 64  | cluster near5 tool same plasma and plasma near10 bias\$5 near10 (wafer or substrate)   | USPAT;<br>US-PGPUB;                          | 2004/08/16<br>13:54 |
|   |     |  | EPO; JPO;<br>DERWENT;<br>IBM TDB             |                     |
| _ | 149 | cluster same plasma and plasma near10  | USPĀT;                                       | 2004/08/16          |
| , |     | bias\$5 near10 (wafer or substrate)  | US-PGPUB;<br>EPO; JPO;<br>DERWENT;           | 13:57               |
| _ | 38  | (US-4545136-\$ or US-6040021-\$ or   | IBM_TDB<br>USPAT;                            | 2004/08/16          |
|   |     | US-5125360-\$ or US-4763602-\$ or US-6444277-\$ or US-6635965-\$ or                    | US-PGPUB                                     | 13:55               |
|   |     | US-6541353-\$ or US-6143082-\$ or US-6387185-\$ or US-5997588-\$ or                    |  |                     |
|   |     | US-5351706-\$ or US-5102098-\$ or US-5656338-\$ or US-6042652-\$ or                    |  |                     |
|   |     | US-6174377-\$ or US-5879459-\$ or US-6136725-\$ or US-6296711-\$ or                    |  |                     |
|   | -   | US-5866213-\$ or US-5251148-\$ or US-6056824-\$).did. or (US-20030141820-\$            |  |                     |
|   |     | or US-20040038529-\$ or US-20040065258-\$ or US-20030232506-\$ or US-20020170671-\$    |  |                     |
|   |     | or US-20030109094-\$ or US-20020108714-\$ or US-20040005753-\$ or US-20020100418-\$    |  |                     |
|   |     | or US-20020195056-\$ or US-20010013313-\$ or US-20010011526-\$ or US-20010016364-\$    |  |                     |
|   |     | or US-20040023516-\$ or US-20030198587-\$ or US-20010007244-\$ or                      |  |                     |
| - | 15  | US-20020046705-\$).did.<br>  ((US-4545136-\$ or US-6040021-\$ or                       | USPAT;                                       | 2004/08/16          |
|   |     | US-5125360-\$ or US-4763602-\$ or<br>US-6444277-\$ or US-6635965-\$ or                 | US-PGPUB                                     | 13:55               |
|   |     | US-6541353-\$ or US-6143082-\$ or<br>US-6387185-\$ or US-5997588-\$ or                 |  |                     |
|   |     | US-5351706-\$ or US-5102098-\$ or<br>  US-5656338-\$ or US-6042652-\$ or               |  |                     |
|   |     | US-6174377-\$ or US-5879459-\$ or US-6136725-\$ or US-6296711-\$ or                    |  |                     |
|   |     | US-5866213-\$ or US-5251148-\$ or US-6056824-\$).did. or (US-20030141820-\$            |  |                     |
|   |     | or US-20040038529-\$ or US-20040065258-\$ or US-20030232506-\$ or US-20020170671-\$    |  |                     |
|   |     | or US-20030109094-\$ or US-20020108714-\$ or US-20040005753-\$ or US-20020100418-\$    | l  |                     |
|   |     | or US-20020195056-\$ or US-20010013313-\$<br>or US-20010011526-\$ or US-20010016364-\$ |  |                     |
|   |     | or US-20040023516-\$ or US-20030198587-\$ or US-20010007244-\$ or                      |  |                     |
|   |     | US-20020046705-\$).did.) and cluster   |  |                     |

|   | 14  | US-5125360-\$ or US-4763602-\$ or US-6444277-\$ or US-6635965-\$ or US-6541353-\$ or US-6143082-\$ or US-6387185-\$ or US-5997588-\$ or US-5351706-\$ or US-5102098-\$ or US-5656338-\$ or US-6042652-\$ or US-6174377-\$ or US-5879459-\$ or US-6136725-\$ or US-6296711-\$ or US-5866213-\$ or US-5251148-\$ or US-6056824-\$).did. or (US-20030141820-\$ or US-20040038529-\$ or US-20040065258-\$ or US-2003012506-\$ or US-20020170671-\$ or US-2003010994-\$ or US-20020170671-\$ or US-20030109558-\$ or US-20040005753-\$ or US-20020100418-\$ or US-20020195056-\$ or US-20020100418-\$ or US-20020195056-\$ or US-20010013313-\$ or US-2002010011526-\$ or US-20010016364-\$ or US-2002040023516-\$ or US-20030198587-\$ or US-20020046705-\$).did.) and cluster and plasma | USPAT;<br>US-PGPUB                                      | 2004/08/16 13:55    |
|---|-----|---|---|---------------------|
|   | 3   | ((US-4545136-\$ or US-6040021-\$ or US-5125360-\$ or US-4763602-\$ or US-6444277-\$ or US-6635965-\$ or US-6541353-\$ or US-6143082-\$ or US-6387185-\$ or US-5997588-\$ or US-5351706-\$ or US-5102098-\$ or US-5656338-\$ or US-6042652-\$ or US-6174377-\$ or US-5879459-\$ or US-6136725-\$ or US-5251148-\$ or US-5866213-\$ or US-5251148-\$ or US-6056824-\$).did. or (US-20030141820-\$ or US-20040038529-\$ or US-20040065258-\$ or US-200301232506-\$ or US-20020170671-\$ or US-2003010994-\$ or US-20020170671-\$ or US-200301095753-\$ or US-20020100418-\$ or US-20020195056-\$ or US-20020100418-\$ or US-20020195056-\$ or US-200201006364-\$ or US-20020007244-\$ or US-20020046705-\$).did.) and cluster same plasma  | USPAT;<br>US-PGPUB                                      | 2004/08/16 13:55    |
| _ | 138 | cluster near5 tool and plasma near10 bias\$5 near10 (wafer or substrate)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/08/16 16:33    |
| - | 368 | gas\$5 near5 distribut\$5 near10 reactors!  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/08/16<br>16:34 |
| _ | 107 | gas\$5 near5 distribut\$5 near10 reactor near5 plurality  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/08/16<br>16:35 |
| - | 64  | gas\$5 near5 distribut\$5 near10 reactor<br>near plurality  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/08/16<br>16:55 |
| _ | 19  | showerhead near10 (triangular or delta or linear)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/08/16<br>16:57 |
| _ | 1   | showerhead near10 (triangular or delta)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM TDB | 2004/08/16<br>16:58 |

Page 8

| - | 175 | showerhead near10 shap\$5                 | USPAT;    | 2004/08/16 |
|---|-----|---|-----------|------------|
|   |     | -   | US-PGPUB; | 16:58      |
|   |     |   | EPO; JPO; |            |
|   |     |   | DERWENT;  |            |
|   |     |   | IBM_TDB   |            |
| _ | 56  | showerhead near10 shap\$5 near10 (gas\$5) | USPAT;    | 2004/08/16 |
|   |     | -   | US-PGPUB; | 16:58      |
|   |     |   | EPO; JPO; | 1          |
|   |     |   | DERWENT;  |            |
|   |     |   | IBM TDB   |            |

一貫 金田子田田子 あい